THE IMPORTANCE OF EARLY DIAGNOSIS AND EARLY OPERATION IN HEMOLYTIC STREPTOCOCCUS GANGRENE *

(ABSTRACT)

FRANK L. MELENEY

In 1924 a series of twenty cases of Hemolytic Streptococcus Gangrene was reported from the Peking Union Medical College in China.[1] Although this disease is relatively rare in the United States, as compared with China, it does occur from time to time and may come into the experience of any surgeon in the course of a year. It is not common enough for individual surgeons, seeing it for the first time, to recognize it readily and yet its early recognition and prompt operative relief are of the utmost importance to prevent either the death of the patient or the extreme destruction of large areas of skin and consequent prolonged hospitalization.

The course of the disease in untreated cases may be briefly described as follows:

1. It is a rapidly spreading infection arising from a superficial break in the skin, a scratch, a hypodermic injection, a cut, a pimple or a boil.

2. It usually occurs in the extremities but may attack any part of the body surface.

3. The part becomes red, hot, swollen, heavy, numb and sometimes anaesthetic. The margin is not raised nor clearly defined but fades off into normal skin.

4. The general symptoms are profound prostration, indifference to surroundings, a lack of appreciation of the severity of the illness, a rapid pulse without high fever, but with occasional chills.

5. On the third or fourth day discolored dusky areas of skin appear with or without blisters or bullae and the spread continues.

* Delivered before the Section of Surgery, January 4, 1929.

1 Meleney, Frank L., *Archives of Surgery*, Vol. 9, page 317, 1924.

6. From the fifth to the eighth day the discolored areas become frankly gangrenous and the spread continues.

7. From the ninth to the twelfth day the gangrenous areas begin to separate and the spread may cease.

8. Subsequent separation of the dead skin discloses wide-spread necrosis of the subcutaneous tissues, the extent of which can only be determined by incisions. This necrosis may extend up the whole length of the arm or leg or involve the whole circumference of the limb.

9. Some cases come to a spontaneous standstill and the slough separates, leaving extensive granulating areas. The undermined edges may gradually become adherent and epithelium may grow in from the margin.

10. In most cases without operation the process continues to advance, lung signs develop, metastatic abscesses form, and death ensues if prompt surgical treatment is delayed.

The disease is primarily a necrotizing infection of the subcutaneous fat with secondary necrosis of a part of the overlying skin. This is due to a thrombosis of the skin vessels which pass through the necrotic slough. It does not spread beneath the deep fascia unless the original injury carries the infection to the deeper regions.

In rapidly spreading acute infections of the skin the surgeon should be keenly alert to observe the earliest signs of skin gangrene, a dusky discoloration with or without blisters or bullae. As soon as the skin shows the slightest duskiness, incisions should be made through this necrobiotic skin to and just beyond the limits of the subcutaneous necrosis which are revealed by the incision. Amputation is unnecessary in most cases and should be used only when the original injury has carried the infection to the deeper parts. After adequate incisions have been made, the involved part should be soaked in hot water or poulticed until the cellulitis has subsided. The necrotic skin and subcutaneous slough should then be removed as rap-

idly as possible. The defects will usually have to be covered by skin grafts. Prompt operation makes all of the difference between rapid resolution of the process on the one hand and great destruction of tissue, if not metastasis and death, on the other.

A plea is therefore made for the early recognition of and prompt operation in this disease.

NEW VESTIBULAR COMPLEXES FOR LOCALIZATION OF BRAIN TUMORS *

(An analysis of 139 verified lesions)

(ABSTRACT)

LEWIS FISHER

This series comprised 65 supra-tentorial and 74 sub-tentorial lesions.

The subject is presented from six angles:

1. Findings indicative of a brain lesion, given as spontaneous vertical nystagmus; poor pelvic girdle movements; marked disproportion between nystagmus and vertigo after turning; marked disproportion in the activity or duration of the responses from the horizontal and vertical semi-circular canals of the same side, after douching; loss of nystagmus from the vertical canals, but past pointing present; perverted nystagmus from either horizontal or vertical canals after douching; vertigo, or past pointing, in the wrong direction after stimulation; dissociated movement of the two eyes after stimulation; loss of all vestibular responses after stimulation, with good hearing.

2. Abnormal responses to ear stimulation do not indicate an increase in generalized intra-cranial pressure, and conversely, an increase in the spinal manometric pressure is not always accompanied by abnormal vestibular findings.

* Delivered before the Section of Otology, February 8, 1929.